

YIN (IRENE) LIN

(+1) 734-881-6038
irenelin@umich.edu
<https://niceirene.github.io/>

EDUCATION

University of Michigan, Ann Arbor

Ph.D. student in Computer Science and Engineering

Advisor: [Prof. H. V. Jagadish](#)

GPA: 4.0/4.0

Ann Arbor, MI

Sept. 2019 – present

Shanghai Jiao Tong University (SJTU)

B.S. in Computer Science, Department of Computer Science

GPA: 3.76/4.0

Shanghai, China

Sept. 2015 – June 2019

PUBLICATIONS

Conferences

- **Yin Lin**, Yifan Guan, Abolfazl Asudeh, H. V. Jagadish, Identifying Insufficient Data Coverage in Databases with Multiple Relations, in *the 46th International Conference on Very Large Data Bases (VLDB)*, 2020.
- **Yin Lin**, Xinyi Chen, Xiaofeng Gao, Bin Yao, Guihai Chen, R^2 -Tree: An Efficient Indexing Scheme for Data Center Networks, in *the 29th International Conference on Database and Expert Systems Applications (DEXA)*, 2018 (Oral, Acceptance Rate 21.88%).

RESEARCH EXPERIENCES

Identifying Insufficient Data Coverage in Databases with Multiple Relations

Sept. 2019 – July 2020

University of Michigan – Advisor: [Prof. H. V. Jagadish](#)

- Provide an efficient approach for coverage analysis, given a set of attributes across multiple tables.
- Design an index scheme to avoid explicit table joins, achieve efficient memory usage and support predicate combination for aggregate count queries at a high level of parallelism.
- Proposed a priority-based search algorithm to traverse and prune the lattice space of all possible value combinations.
- Present approximate query processing methods to further reduce the computation time.

Scalable R-Tree based Indexing for Server-Centric Cloud Storage Systems

Dec. 2016 – Feb. 2018

Shanghai Jiao Tong University – Advisor: [Prof. Xiaofeng Gao](#)

- Proposed a scalable R-Tree based indexing scheme for high dimensional data in data centers. Utilized R-Tree to support point, range query and used Bloom filter to reduce the false positives.
- Formulated a general definition for server-centric data center topologies and employed the two-layer indexing framework to maintain a global index layer above the structured overlay.
- Validated the indexing scheme in up to 64 instances and three different data center topologies.

INTERNSHIPS

University of Waterloo,

Research Intern in Software Architecture Group (Advisor: [Prof. Meiyappan Nagappan](#)) July 2018 – Oct. 2018

- Analyzed coding tools proposed in ICSE 2014-2018. Defined a criterion to classify the tools by their functions and developing scenarios, providing keyword search support for the tools in our tool repository.
- Conducted an A/B test and built a survey website to investigate the optimal mobile ads usage pattern. This test provides guidance for developers using Google Mobile Ads SDK.

Huawei Technologies Co., Ltd.,

Research Intern in GaussDB Group (Mentor: Bo Gao)

Apr. 2019 – July 2019

- Use machine learning to predict database statistics and data distribution in the storage system. Automatically reconstruct the indexes to speed up query processing.

TEACHING EXPERIENCES

[CS499](#), Mathematical Foundations of Computer Science, SJTU
Teaching Assistant. Instructor: [Prof. Dominik Scheder](#)

Spring 2018

HONORS & AWARDS

Rackham Dean's and Named PhD fellowship *Full first-year PhD fellowship from the University of Michigan* 2019-2020
Outstanding Undergraduates in Shanghai Jiao Tong University June 2019
Academic Scholarship *Awarded to top 10% undergraduates for academic performance at SJTU* 2016 – 2018
National Scholarship for Studying Abroad, China Scholarship Council *Awarded to 200 undergraduates in China* 2018
SCSK Scholarship *Awarded to 7 computer science undergraduates at SJTU for the academic performance* 2018
Yitu Scholarship *Awarded to 3 outstanding computer science undergraduates at SJTU for their research* 2017
Huawei Scholarship *Awarded to 7 computer science undergraduates at SJTU for the academic performance* 2017
Chun Tsung Scholar *Awarded to 50 undergraduates at SJTU, funded by Nobel Prize owner Tsung-Dao Lee* 2016